

This listing of claims replaces all prior versions of the claims in the Application.

Listing of Claims

Claim 1. (Original) A process for preparing polymer particles comprising the step of:
polymerizing one or more monomers in an aqueous emulsion comprising one or more
surfactants, the one or more surfactants consisting of nonionic surfactants, wherein at least one of
the nonionic surfactants is an amine-N-oxide surfactant, and wherein the polymer particles have
a mean particle size of less than or equal to 100 nm.

Claim 2. (Currently Amended) The process of claim 1 wherein the amine-N-oxide
surfactant is ~~selected~~ chosen from N-alkyl amine oxides, N-acyl amine oxides ~~or~~ and N-
alkoxyalkyl amine oxides.

Claim 3. (Currently Amended) The process of claim 2 wherein the amine-N-oxide is
~~selected~~ chosen from N-cocodimethylamine oxide, N-lauryl dimethylamine oxide, N-myristyl
dimethylamine oxide, N-stearyl dimethylamine oxide; N-cocamidopropyl dimethylamine oxide,
N-tallowamidopropyl dimethylamine oxide, ~~or~~ and bis(2-hydroxyethyl) C₁₂₋₁₅
alkoxypropylamine oxide.

Claim 4. (Currently Amended) The process of claim 3 wherein the bis(2-hydroxyethyl)
C₁₂₋₁₅ alkoxypropylamine oxide is ~~selected~~ chosen from lauric acid diethanolamide, coconut acid
diethanolamide, myristic acid diethanolamide, ~~or~~ and oleic acid diethanolamide.

Claim 5. (Currently Amended) The process of claim 1 further comprising one or more
nonionic surfactants ~~selected~~ chosen from ethoxylated fatty alcohols, fatty acid alkanolamides,
sorbitan derivatives ~~or~~ and ethylene oxide/propylene oxide copolymers.

Claim 6. (Currently Amended) The process of claim 1 wherein the mean particle size ~~of~~ is
less than or equal to 50 nm.

Claim 7. (Original) The process of claim 1 wherein the amine-N-oxide surfactant is
present in an amount from 0.1 to 15 % by weight, based on the total weight of the composition.

Claim 8. (Currently Amended) The process of claim 1 wherein at least one monomer is
~~selected~~ chosen from silyl containing monomers ~~or~~ and poly(alkylene oxide) monomers.

Claim 9. (Original) The process of claim 1 further comprising one or more cross-linking agents.

Claim 10. (Original) The process of claim 1 wherein the emulsion is free of siloxane monomers.

Claim 11. (Withdrawn) An emulsion of polymer particles comprising one or more surfactants, the one or more surfactants consisting of nonionic surfactants, wherein at least one of the nonionic surfactants is an amine-N-oxide surfactant, and wherein the polymer particles have a mean particle size of less than or equal to 100 nm.

Claim 12. (Withdrawn) The emulsion of claim 11 wherein the amine-N-oxide surfactant is selected from N-alkyl amine oxides, N-acyl amine oxides or N-alkoxyalkyl amine oxides.

Claim 13. (Withdrawn) The emulsion of claim 12 wherein the amine-N-oxide is selected from N-cocodimethylamine oxide, N-lauryl dimethylamine oxide, N-myristyl dimethylamine oxide, N-stearyl dimethylamine oxide; N-cocamidopropyl dimethylamine oxide, N-tallowamidopropyl dimethylamine oxide, or bis(2-hydroxyethyl) C₁₂₋₁₅ alkoxypropylamine oxide.

Claim 14. (Withdrawn) The emulsion of claim 13 wherein the bis(2-hydroxyethyl) C₁₂₋₁₅ alkoxypropylamine oxide is selected from lauric acid diethanolamide, coconut acid diethanolamide, myristic acid diethanolamide, or oleic acid diethanolamide.

Claim 15. (Withdrawn) The emulsion of claim 11 wherein the mean particle size of less than or equal to 50 nm.

Claim 16. (Withdrawn) An emulsion of polymer particles comprising one or more nonionic surfactants, wherein the polymer particles have a mean particle size of less than or equal to 100 nm, and wherein the emulsion is substantially free of ionic surfactants.

Claim 17. (Withdrawn) The emulsion of claim 16 wherein at least one of the nonionic surfactants is an amine-N-oxide surfactant.

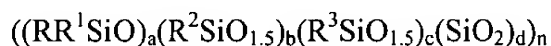
Claim 18. (Withdrawn) A composition comprising a B-staged dielectric material and an emulsion polymeric porogen particle wherein the polymer particles have a mean particle size of less than or equal to 100 nm, and wherein the polymer particles are substantially free of ionic surfactants.

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Claim 19. (Withdrawn) The composition of claim 18 wherein the B-staged dielectric material is selected from silicon carbides, boron carbides, aluminum carbides, silicon oxides, boron oxides, aluminum oxides, silicon nitrides, boron nitrides, aluminum nitrides, silicon oxyfluorides, boron oxyfluorides, aluminum oxyfluorides, silicones, siloxanes, benzocyclobutenes, poly(aryl esters), poly(ether ketones), polycarbonates, polyimides, fluorinated polyimides, polynorbornenes, poly(arylene ethers), polyaromatic hydrocarbons, polyquinoxalines, poly(perfluorinated hydrocarbons), or polybenzoxazoles.

Claim 20. (Withdrawn) The composition of claim 18 wherein the emulsion polymeric porogen particle comprises one or more amine-N-oxide surfactants.

Claim 21. (Withdrawn) A method of manufacturing an electronic device comprising the steps of: a) depositing on a substrate a layer of a composition comprising B-staged dielectric material having a plurality of emulsion polymeric porogen particles dispersed therein, wherein the porogen particles have a mean particle size of less than or equal to 100 nm, and wherein the porogen particles are substantially free of ionic surfactants; b) curing the B-staged dielectric material to form a dielectric matrix material without substantially removing the porogen particles; c) subjecting the dielectric matrix material to conditions which at least partially remove the porogen particles to form a porous dielectric material layer without substantially degrading the dielectric material; d) patterning the dielectric layer; e) depositing a metallic film onto the patterned dielectric layer; and f) planarizing the film to form an electronic device.

Claim 22. (Withdrawn) The method of claim 21 wherein the B-staged dielectric material is an organo polysilica compound having the formula:



wherein R, R¹, R² and R³ are independently selected from hydrogen, (C₁-C₆)alkyl, aryl, and substituted aryl; a, c and d are independently a number from 0 to 1; b is a number from 0.2 to 1; n is integer from about 3 to about 10,000; provided that a + b + c + d = 1; and provided that at least one of R, R¹ and R² is not hydrogen.
